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Play and games are thought to have a vital role in the socialization process. This study explores the impact of differences in socialization via game experience according to sex. Children in the sixth grade of a racially-integrated rural school in Maryland were surveyed with regard to their participation in four types of games: (1) individual, (2) sports, (3) board or card, and (4) party. Game experience was found to be related to a range of attitudes, including: (1) sense of efficacy, (2) self image, (3) belief in success, and (4) orientation toward school. The four game types were found to have socializing effects regardless of sex of the player. In addition, each game type had a differential impact by sex. The findings highlight the need for further research on the role of the activities of peer and family groups. (Author/EK)

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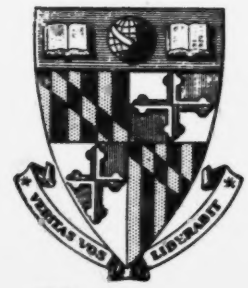

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REPORT NO. 30

GAME EXPERIENCE AND SOCIALIZATION
AN EXPLORATORY STUDY OF SEX DEFFERENCES

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GAME EXPERIENCE AND SOCIALIZATION:

An Exploratory Study of Sex Differences

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ABSTRACT

Play and games are widely held to play a vital role in the socialization process. This study explores the impact of differences in socialization via game experience according to sex. Children in the sixth grade at a rural school were surveyed with regard to their participation in four types of games: individual; sports; board or card; and party. Game experience was found to be related to a range of attitudes, including (1) sense of efficacy, (2) self-image, (3) belief in success, (4) orientation toward school. All four game types were found to have certain socializing effects regardless of the sex of the player. In addition, each game type appears to have a differential impact by sex. For example, sports participation is related to the expression of achievement values for males but not for females. The findings highlight the need for further research on the role of the activities of peer and family groups.

GAME EXPERIENCE AND SOCIALIZATION: AN EXPLORATORY STUDY OF SEX DIFFERENCES

There is a wide range of theories concerning the role of games in the socialization process.[1] Some writers have suggested that play and games are important for developing individual traits and skills. For example, Erikson (1963: 211) presents a view also held by others (such as Caillois, 1961; Huizinga, 1955) that play activities promote personality integration. He has described play as ego's attempt to synchronize the bodily and social processes with the self. One particular skill predicted to be developed by play activity is creativity. Lieberman (1965) has reviewed evidence which suggests that playfulness is related to divergent thinking.

Other writers have related games to the development of social awareness. The most notable commentator here is Mead (1963: 228-330) who postulates that games help children to grasp the meaning of roles and to learn to take the role of others. And Piaget's (1965) observations have led him to suggest that games give children practice with the rules which compose a social order.

In addition, there are hypotheses which state that play and games provide skills valuable for interacting effectively with the environment. Thus Boocock and Coleman (1966) have argued that games are one source of a feeling of personal efficacy. Their reasoning is that games, better than many real-life situations, provide players with clear feedback on the consequences of their decisions. Schelling (1961) implies that games develop empathy among players, upon which consensus is built. A player learns to seek out the predictabilities in another player's activities.

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[1] For a more detailed and complete discussion of these theories, see the review by Inbar and Stoll (in press).

To summarize, play and game activities have been suggested as being important for the development of an individual both as a personality and as a social actor. Yet there has been little empirical research on these or other theories. A notable exception testifying to the probable validity of the autotelic hypothesis is Harlow's (1964) research on monkeys. He found that infant monkeys raised on cloth mothers, but given the opportunity to form infant-infant affectional patterns through play, developed normal social sexual responses in adulthood. Conversely, monkeys deprived of contact with other infants did not. In other words, the play-pen is as important as natural mothering for some aspects of the socializing process.

There has not been comparable longitudinal research on humans to test whether degree of exposure to play or game activities has observable impacts in personality or social development. In fact, there is not even much evidence of an indirect type, that is, studies which demonstrate correlations between reported game-activity and social attitudes, skills, and values. Thus, a first step in evaluating the autotelic hypotheses - those propositions predicting that games have socializing effects - would be to demonstrate covariations between game experience and socialization outcomes.

Yet even the problem of establishing covariations is not a simple one. One difficulty lies in the fact that theorists have failed to consider that games have great variability in structure. Should one expect, for example, that physical games and card games would have the same socializing outcomes? The problem is an empirical one. A second complication is that the type of games played vary by age and sex.

Eiferman's (1968) research based upon observations of play among Arab and Israeli children presents detailed descriptions of variations in game content by sex and culture. Boys' games in both cultures are characterized by (1)

far greater interdependence of roles, (2) high division of labor, (3) zero-sum competition, (4) physical contact, and (5) quarreling. Girls' games display (1) low division of labor, (2) less group activity, and (3) the absence of end-game characteristics. Also, there is a large minority of children at all ages (including latency) who participate in sex-heterogeneous games, except for Arab children. Apparently even though the Arab schools are sex-heterogeneous, the childrens play prepares them for culturally predominant sex-homogeneous restrictions.

The aims of the present investigation were to explore the usefulness and probable validity of the autotelic theory. In particular, it was asked whether there is a differential impact by type of game or whether games have certain universal effects. Also, it was asked how game experience had differential effects by sex of the player.

Method

The research was conducted in a racially-integrated rural elementary school in Maryland. All sixth-graders (N = 108) completed a questionnaire, part of which dealt with the frequency and social context of autotelic activities.

In order to measure game experience, the following question was asked with regard to (1) sports, (2) board or card games, (3) individual games and hobbies, and (4) party or group games:[2]

On the average, how often do you take part in (type of game)?

a. once a month

b. between once a month and once a week

c. about once a week

d. about twice a week

e. more than twice a week

Given the small sample size it was necessary to dichotomize the resulting frequency distributions for purposes of analysis. The cutpoints for each type of game activities are as follows: sports, more than twice a week; individual games, twice a week; board games, once a week; party games, once a month.

Because the data were collected in conjunction with another study, it was necessary to limit the type of "effects" variables. Given that the larger study focused upon student role and classroom climate, it was decided to examine possible relations between game playing and variables related to school, achievement, and self-image. Not only were these variables quite relevant to the theme

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[2] Extensive definitions were provided for each game type. e.g. "Party Games - these games are played with other people, do not require any great physical skill, nor any prepared materials. They include pantomimes, guessing games, and "ice breakers."

of the larger study, but other variables of interest to autotelic theorists (e.g. creativity, personality integration, role-taking skill, and so forth) would require more sophisticated measures and time for administration. (These latter variables are included in a large-scale cross-cultural survey the authors are presently conducting.)

Two attitude items dealt with the child's belief in efficacy over the environment (e.g. agreement that hard work is more important than luck for success; agreement that people like himself have a chance to succeed.) Another item concerned the child's self-image, namely, the child's desire to be someone else if he could. These items are identical to those used in the Coleman et al (1966) survey which related both sense of efficacy and self-image to academic achievement. If games are one source for nurturing these attitudes, then they would have an important socializing function on this basis alone.

Several measures relate directly to school role and performance. First, the results of a scholastic achievement test (S.C.A.T.) were administered to all respondents as part of the research. Secondly, the student was asked to agree with statements such as "Sometimes I just can't learn" or "My teacher thinks of me as a good student."

Three attitude items about the general interaction preferences were included in accord with Mead and Piaget, both of whom suggest that games develop special attitudes toward social situations in general. The respondent stated (1) his preference for cooperative or competitive situations, (2) his perception of rules as manipulable, and (3) his ability to remain involved in situations without becoming bored.

The data were analyzed by means of cross-tabulation techniques. All findings discussed here are significant at least at the .05 level of signifi-

cance or more, using a test of proportions. In cases where there was reason to suspect the reliability or direction of a finding, it was not included for discussion.[3]

In accord with previous investigations of sex role and game experience (Eiferman, 1968), the boys and girls in our sample display very different patterns of game involvement. Table 1 presents the measures of association (gamma) for frequency of game play within each sex type. For males, playing sports is quite independent of involvement in other types of games. The three other types, individual, board-card, and group form a highly interrelated cluster. For females, on the other hand, sport participation directly related to participation in individual games and inversely related to participation in group games. Given these rather different patterns of involvement in game participation by sex, we should naturally expect differences in game impact.

Results

Each of the game types varies with regard to the structure and context in which the games typically take place. Individual games are by definition solitary activities. Sports are generally highly structured, physically active, large group activities. Board and card games are highly structured, mentally-active, though usually of small group size. Party games, such as guessing games or charades, are loosely structured, may have either physical or mental activity, and can have wide variations in group size. It should not be surprising, then, that each type of game has certain possible effects regardless of the sex

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[3] It should be pointed out that the sample is fifty percent nonwhite. In analyzing the present data, respondents were also categorized by race. The subsample sizes became too small to be confident of the strength of relationships uncovered. Yet it was possible from these race-sex classifications to note whether findings appear to hold for sex across racial identifications. The sex differences discussed here appear to be valid whether the respondent is white or nonwhite.

TABLE 1

Correlations (Gammas) among Frequency of Game Play Within Sex

Code: S = Sports

I = Individual

C = Card-Board

P = Party Group

		Males				Females			
		S	I	C	P	S	I	C	P
T	S	-	.23	.03	.29	-	.69	.21	-.41
	I			.44	.60			.21	.26
	C				.52				.05

of the participant.

1. General effects: Table 2 shows those variables for which game participation was important for both sexes. Those who participate in individual games are more likely to believe that the teacher perceives them as good students, yet they have a lower interest in school. (Perhaps these students develop individual projects and activities to compensate for some dissatisfaction with school experience.)

Students who participate in sports are less likely to be bored easily, and more likely to feel that they can learn. Similar positive attitudes are related to the other group games. In contrast, board-card players are more likely to be bored easily, have a worse self-image, and yet believe that the teacher perceives them favorably. And those who participate in party games are much more confident about their chances for success, as well as to favor the importance of luck over hard work for success. They too are very likely to be bored easily with things.

What is remarkable is the strength of these relationships. For example, 65 percent of the males who play party games frequently believe in a chance for success as against only 33 percent of those who play infrequently. (And playing "frequently" in this case means only once a month, at least.) Or, 70 percent of the females who play sports feel they can learn, against only 46 percent of those who play infrequently. The particular reasons why party games may be inducing a sense of efficacy, while sports develop a sense of ability cannot be answered with data from a limited unsystematic sample of the type used here.

2. Effects for females: There are not many additional effects of games for

TABLE 2

General Effects of Game Playing

Sex	Males		Females	
Game Frequency	Low	High	Low	High
A. PARTICIPATION IN INDIVIDUAL GAMES				
% believe teacher perceives them as good students	30 (20)	50 (28)	30 (23)	50 (18)
% have interest in school	80 (20)	64 (28)	78 (23)	61 (18)
B. SPORTS PARTICIPATION				
% not bored easily	46 (13)	67 (30)	23 (22)	58 (18)
% feel can learn	50 (14)	63 (34)	46 (22)	70 (20)
C. BOARD-CARD GAMES				
% not bored easily	70 (20)	52 (23)	59 (17)	46 (24)
% believe teacher perceives them as good students	25 (20)	54 (28)	35 (17)	46 (26)
% would change selves	55 (20)	68 (28)	53 (17)	69 (26)
D. PARTY GAMES				
% not bored easily	70 (23)	47 (19)	50 (24)	33 (15)
% see chance for success	33 (24)	65 (23)	40 (25)	63 (16)
% see luck more important for success	29 (24)	57 (23)	32 (25)	44 (16)

females. (See Table 3.). It will be recalled that females who played sports were also likely to have a high frequency of individual activities. Those high on sports involvement are more likely to believe that the teacher perceives them favorably as a student. Those who frequently play individual games are less satisfied with themselves, feel they can learn, and have confidence that they can be successful. Taken together then, the female participating in sports and individual games exhibits a sense of achievement and efficacy.

Females with high frequency of board-card games are quite different. They are less likely to perceive high chances for success and have less interest in school than those who do play board-card games infrequently. And girls who participate frequently in party games are quite likely to prefer competitive situations in contrast to less-frequent-playing girls, who prefer cooperation. (Perhaps the girls who participate in party games are beginning to exhibit intrasexual social competition.

Some type of selection process may well be operating. Girls who play sports are more likely to have above-average S.C.A.T. scores, while those who frequently play party games are very likely to be below average in achievement. What may be happening, then, is a differentiation of the girls into those who are aspiring to the more traditional role (party, perhaps board-cards) and those who aspire to the liberalized role of women (sports, perhaps individual games.)

3. Effects upon males: For the males, it will be recalled, participation in sports was independent of the other game types. Table 4 shows that those boys who often play sports display a preference for competition and high interest in school. They are also more likely to believe in a chance for success, although they less often feel that teachers evaluate them as good students.

TABLE 3

Effects of Games for Females

Play Frequency	Low	High
A. INDIVIDUAL		
% change selves	52 (23)	78 (18)
% feel can learn	39 (23)	78 (18)
% see chance to succeed	39 (23)	56 (18)
B. SPORTS		
% believe teacher perceives selves as good students	32 (22)	65 (20)
C. BOARD-CARD		
% see chance to succeed	59 (17)	42 (26)
% interested in school	82 (17)	65 (26)
D. PARTY		
% prefer cooperation	57 (23)	7 (14)

TABLE 4

Effects of Games for Males

Game Frequency	Low	High
A. INDIVIDUAL		
% cooperative	40 (20)	50 (26)
% see chance for success	55 (20)	32 (20)
B. SPORTS		
% cooperative	64 (14)	38 (32)
% believe teacher perceives selves as good students	50 (14)	38 (34)
% see chance for success	43 (14)	53 (34)
% interested in school	57 (14)	77 (34)
C. BOARD-CARD		
% like to make up rules	50 (18)	63 (27)
% feel can learn	70 (20)	50 (28)
% see chance for success	40 (20)	57 (28)
% see luck more important than success	30 (20)	50 (28)

TABLE 4 (cont'd)

	Low	High
D. PARTY		
% cooperative	39 (23)	50 (22)
% like to create rules	68 (22)	50 (22)
% believe teacher perceives selves as good students	29 (24)	57 (23)
% would change self	46 (24)	78 (23)
% feel can learn	71 (24)	52 (23)

Boys who play party games in contrast to infrequent players, exhibit a composite image describable as complaisant. They prefer cooperative situations and view rules as fixed or immutable. In addition, they tend to be satisfied with themselves, believing that teachers receive them favorably (although they also feel that they sometimes can't learn.) As with females, males who play party games have lower scholastic achievement.

Card-board games may provoke a sense of efficacy for males. High frequency players are more likely to believe in the chance for success, yet place this success upon luck. Card-board players also have less confidence over their ability to learn, and actually have lower academic achievement. Possibly these games are compensating for players' inability to achieve a sense of confidence through school performance.

4. Sex differences: Most clearly, game play has a greater impact on males with regard to the variables studied than females. Sports are related more to the expression of achievement-oriented values for males than for females. Also, males who participate in party games frequently have a greater tendency to display attitudes indicative of complacency, while such attitudes do not appear for females who play party games. Males who play board-card games express a sense of efficacy, while females playing this type of game display lack of self-confidence.

What could account for these differences? One answer may be that there is a differential selection process into the same game by sex. Thus, we noted that females who play sports are more likely to be better students, while no such selection is apparent for males who play sports. On the other hand, party games attract the poorer students for both male and female, yet have a much stronger impact on males.

Another possibility is that the actual games played within each game type

vary in content or structure by sex. Certainly boys will be playing more body-contact sports than females. Also, boys at this age may be playing more betting-type card games than girls. If these differences in game content do exist, then a more refined game category system might be useful for exploring further the effects of games by sex role.

Another explanation for differential effects by game is that the social context varies by sex. Some data collected on this sample is revelant here. Respondents were asked to name with whom they typically played each game type. The answers were categorized into: adults, siblings, or peers. Table 5 shows that there is very little difference in the social context of card-board and party games by sex. The distributions of game partners are quite similar. In regard to sports, females are somewhat more likely to play with siblings than peers, although peers are, as with males, the modal partner. Thus social context, as defined in the manner here, does not appear to explain the differential impact of games by sex role.

Finally, it is also possible that games have a greater impact on boys because more of their peer-activities are in game settings. In other words, girls may have more unstructured peer activities in the way of gossip, discussions, movies, or shopping. This however is conjecture.[4] Clearly what is needed is a survey of youngsters' activities outside of formal and home settings.

Whatever the answer, our data can only indicate that games may be an important source of differential socialization by sex role. Whether the games themselves structure and shape social development, or whether they are the

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[4] Boys in our sample have a higher frequency of play for three of the four game types: individual, sports, party.

TABLE 5

Social Context of Games, Within Sex

	Percent of respondents who play typically with:			
	Adults	Siblings	Peers	Total
Males:				
Sports	10	19	71	(48)
Card-Board	19	40	41	(47)
Party	10	29	61	(49)
Females:				
Sports	5	36	59	(39)
Card-Board	14	49	37	(47)
Party	7	30	63	(46)

medium through which peers interact and communicate with each other is a problem for further inquiry. Such investigation should consider such factors as the peer relationships of respondents, social characteristics of game partners, the frequency of peer activities - game and non-game.

Implications

This study attempted to explore the potential value of the autotelic hypothesis. In light of the gross category scheme used and of the crude analysis necessitated by the small sample size, one might have expected small differences, if any. The results are all the more impressive. Let us consider the implications with regard to socialization theory.

1. The Universality of the autotelic hypothesis.

Most theorists of games and socialization presume that games are all of one type, that any game can produce the outcome of interest, be it personality integration, creativity, cooperativeness, etc. Our data suggest that outcomes are specific to game types. Needed now is research toward a classification of games by structure. Possible relevant variables here include game size, role differentiation, formalization of rules, and so forth.

2. The role of peers.

Although peers have been held to be second to the family in socialization, research on peer groups seldom considers the daily variety of activities through which socialization presumably occurs. Rather, there has been what one could call a "carbon copy" theory of peer influence: peer attitudes and values impress upon the individual member. Our data, notably the differential impacts of games by sex, suggest that current theory has overlooked an additional factor, namely the variations in structure and context of peer group organization. Thus future research on peer groups as socializing agents, in addition to examining attitudes and values, could profitably investigate the scheduling of activities.

Possibly time budgets of children's informal behaviors would verify that games are, until adolescence, the most prevalent peer group activity. In such a case, games may prove to be a useful summary device for describing youthful peer structures, just as social class summarizes family structure.

3. The role of the family.

For many of our respondents the most frequent game partners were siblings and adult kin. Data from another of our exploratory studies (unpublished) indicate that, for many innter-city black youths, games may be one of the few contexts in which the entire family, including extended kin, participate. Relevant again then is the question of time-budgeting of activities.

With regard to the parent-child relationship, games may be viewed as simulated environments of the outside world. In other words, games provide practice in role relationships external to the family. A parent in family game settings has the opportunity to display attitudes or express values in an active, visibly-direct manner before the child. Very direct dimensions of interpersonal behavior may be involved here, such as competitiveness, trustworthiness, honesty, control over emotional expression. The problem for socialization theory is first, to consider the values and attitudes salient to game situations, secondly, given the range of family activities, to identify values and attitudes expressed uniquely by game settings.

In conclusion, the relevance of games for socialization may go beyond the development of individual skills and attitudes. When viewed in the larger context of socialization, games may reinforce, accelerate, or militate against the intentions of family and peers. Group activities and settings mediate the process of interpersonal influence. By cataloguing these activities, their frequency of occurence, their independent effects upon participants, we can move beyond the static models of socialization based upon the value-orientations of socializing agents.

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